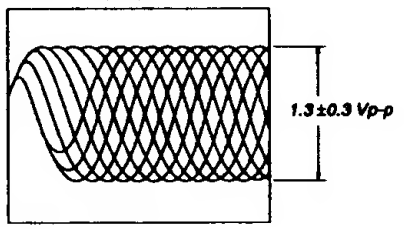
SONY HCD-GR8/RX90

SCHEMATIC DIAGRAM – TUNER Section – (GR8: Tourist/RX90)

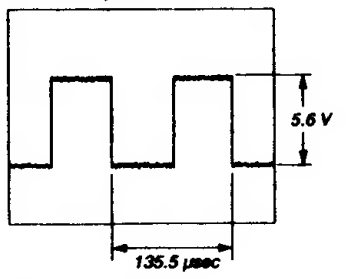
See page 82 for IC Block Diagrams.

• Waveforms

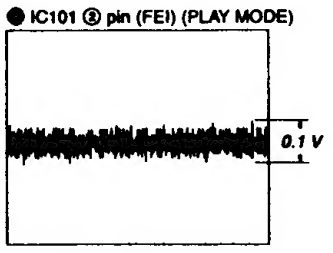
● IC101 ● pin (PLAY MODE)



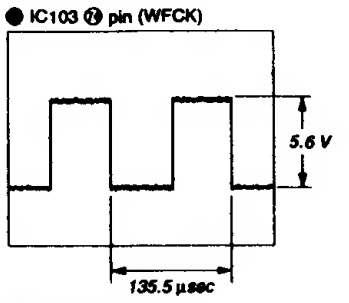
● IC103 ● pin (RFCK)



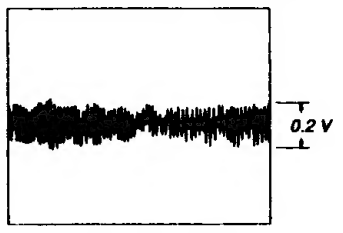
● IC101 ③ pin (FEI) (PLAY MODE)



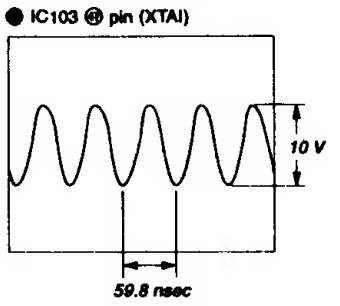
● IC103 ⑦ pin (WFCK)



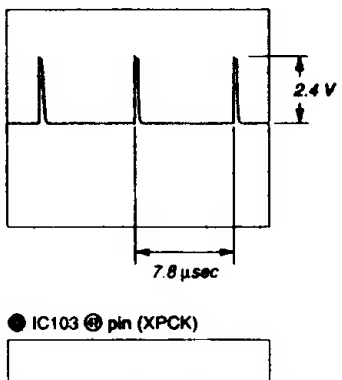
● IC101 ⑭ pin (TEI) (PLAY MODE)



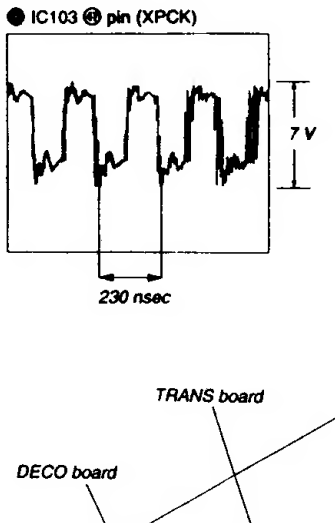
● IC103 ⑭ pin (XTAI)

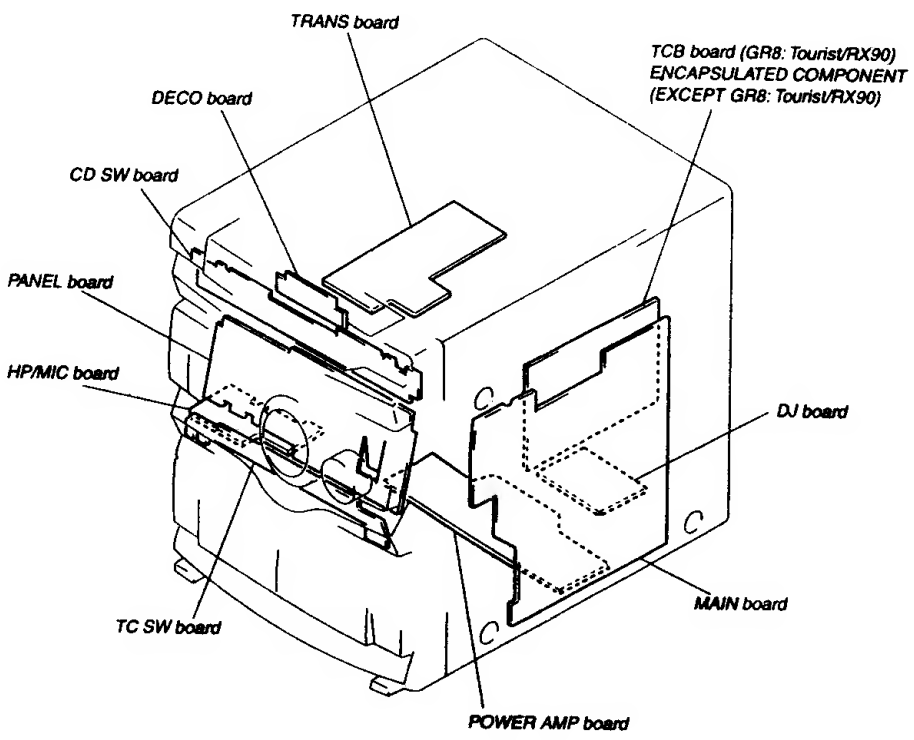


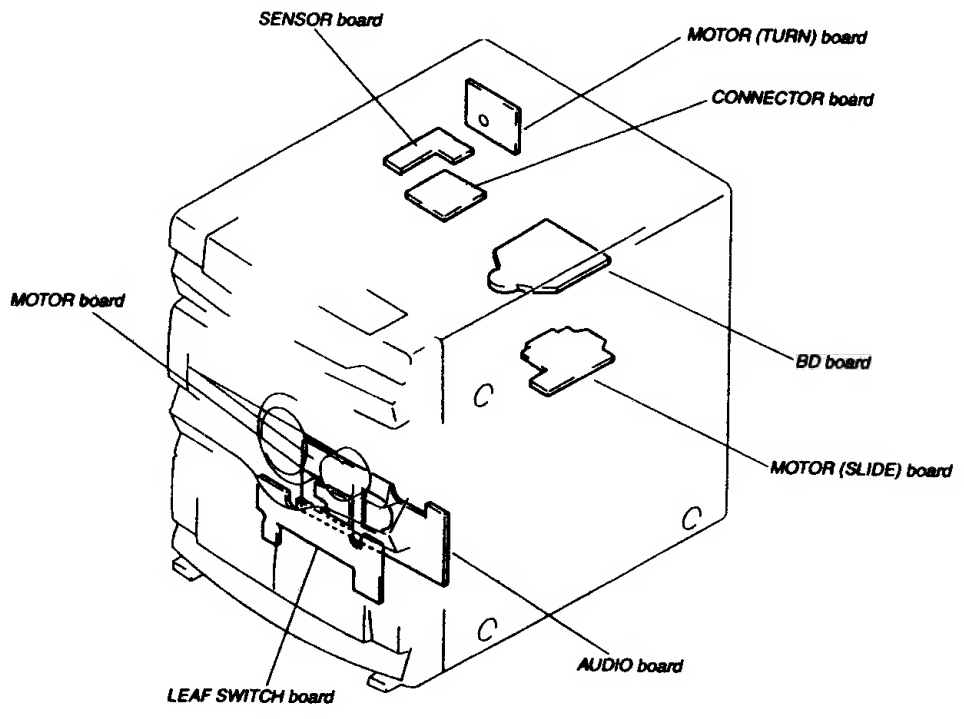
● IC103 ⑮ pin (MDP)

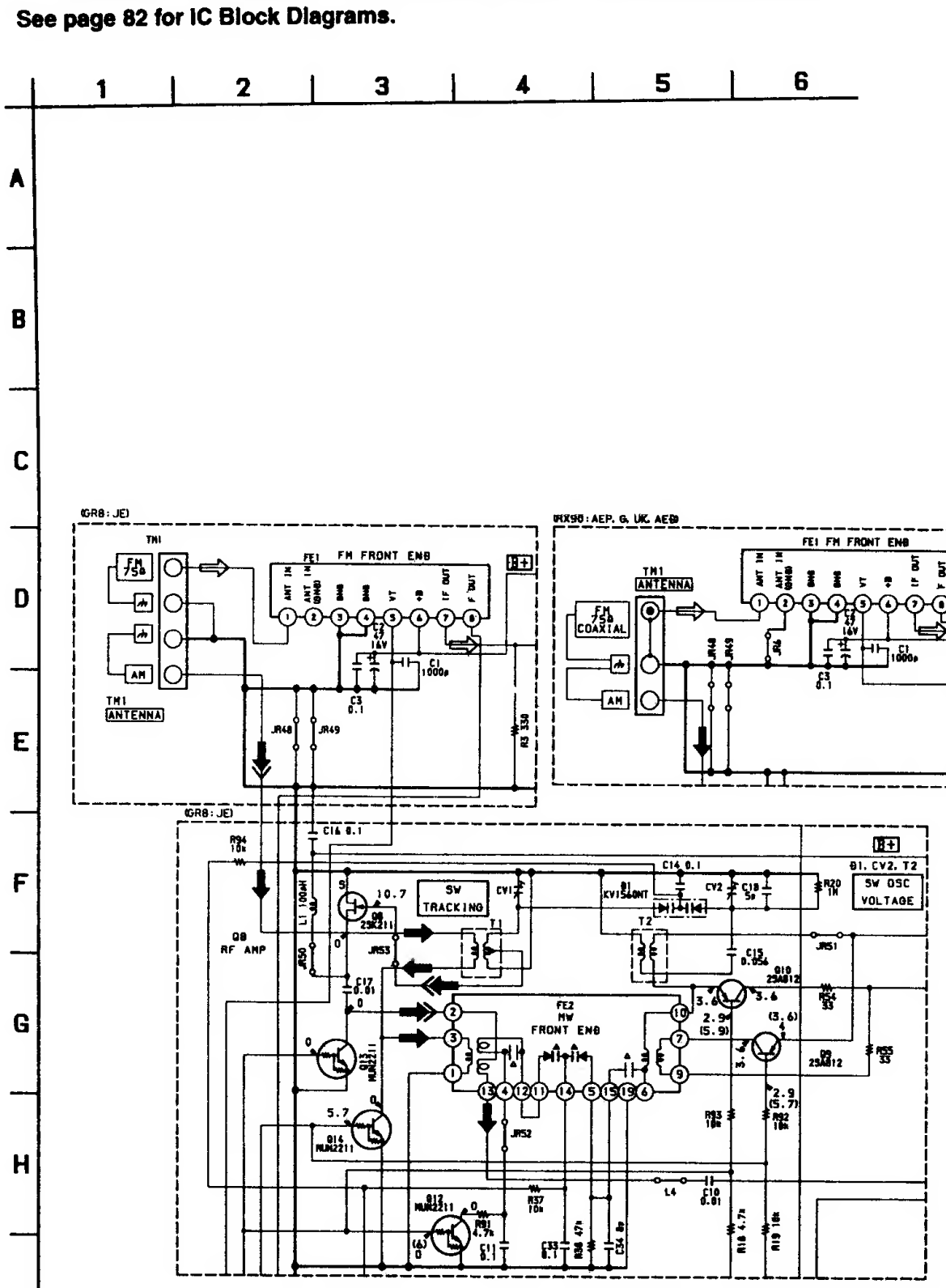


● IC103 ⑯ pin (XPCK)



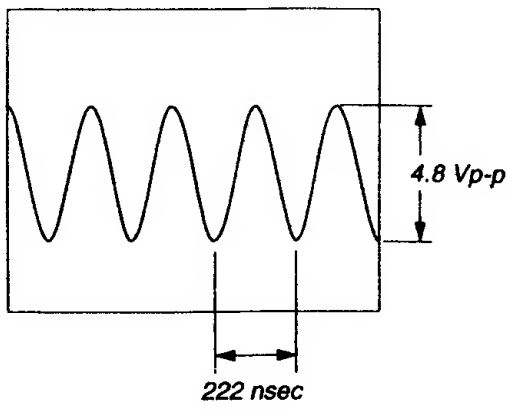




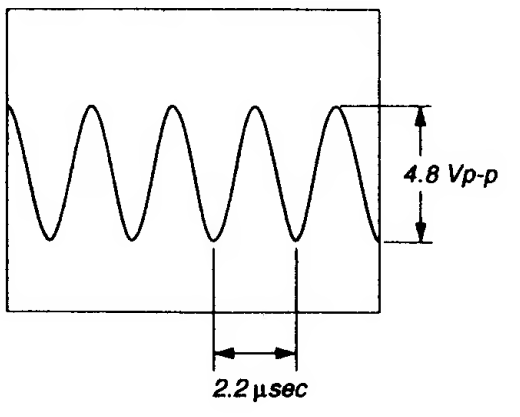


• **Waveforms**

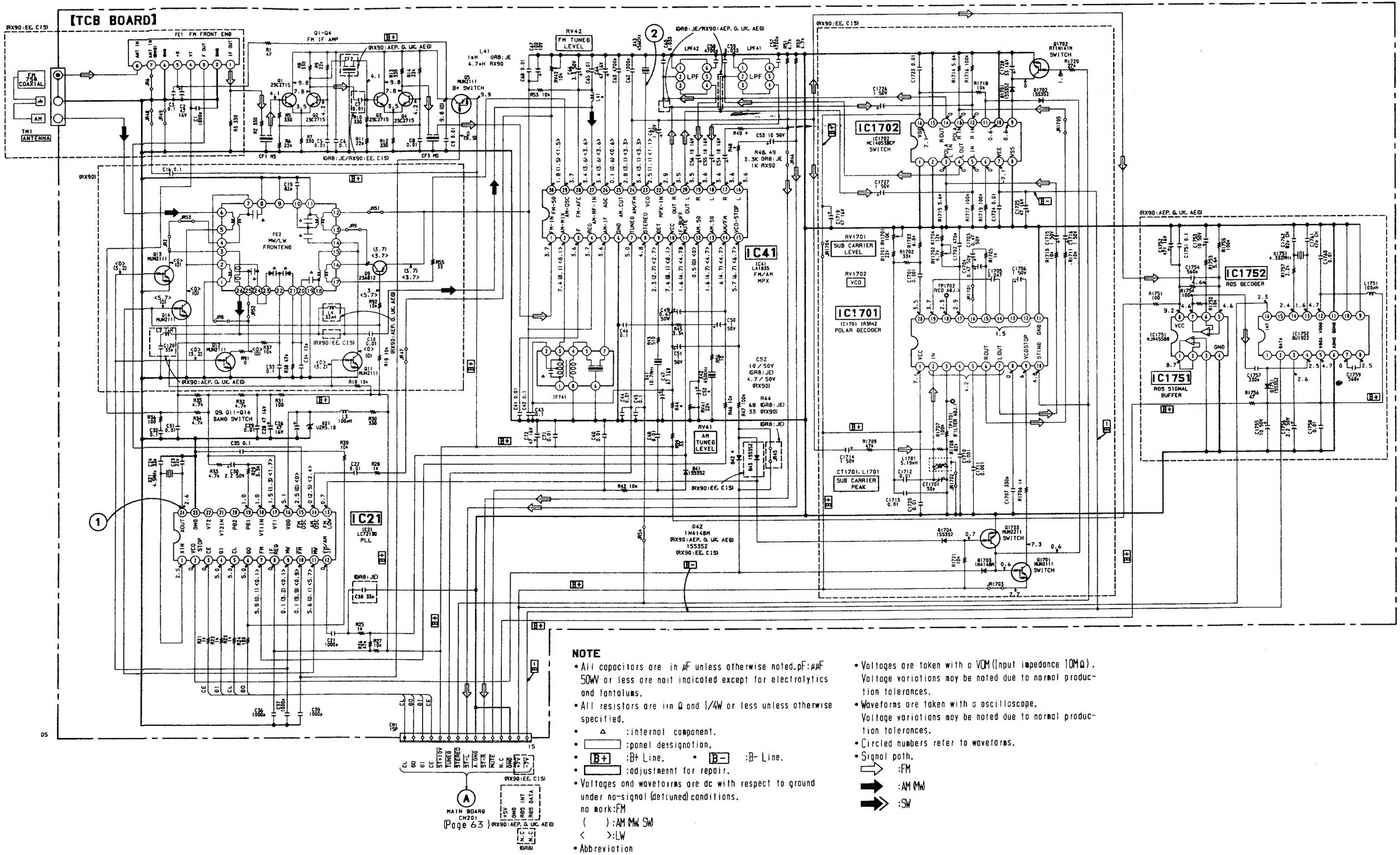
❶ IC21 ㉔ pin (X OUT)



❷ IC41 ㉓ pin VCO

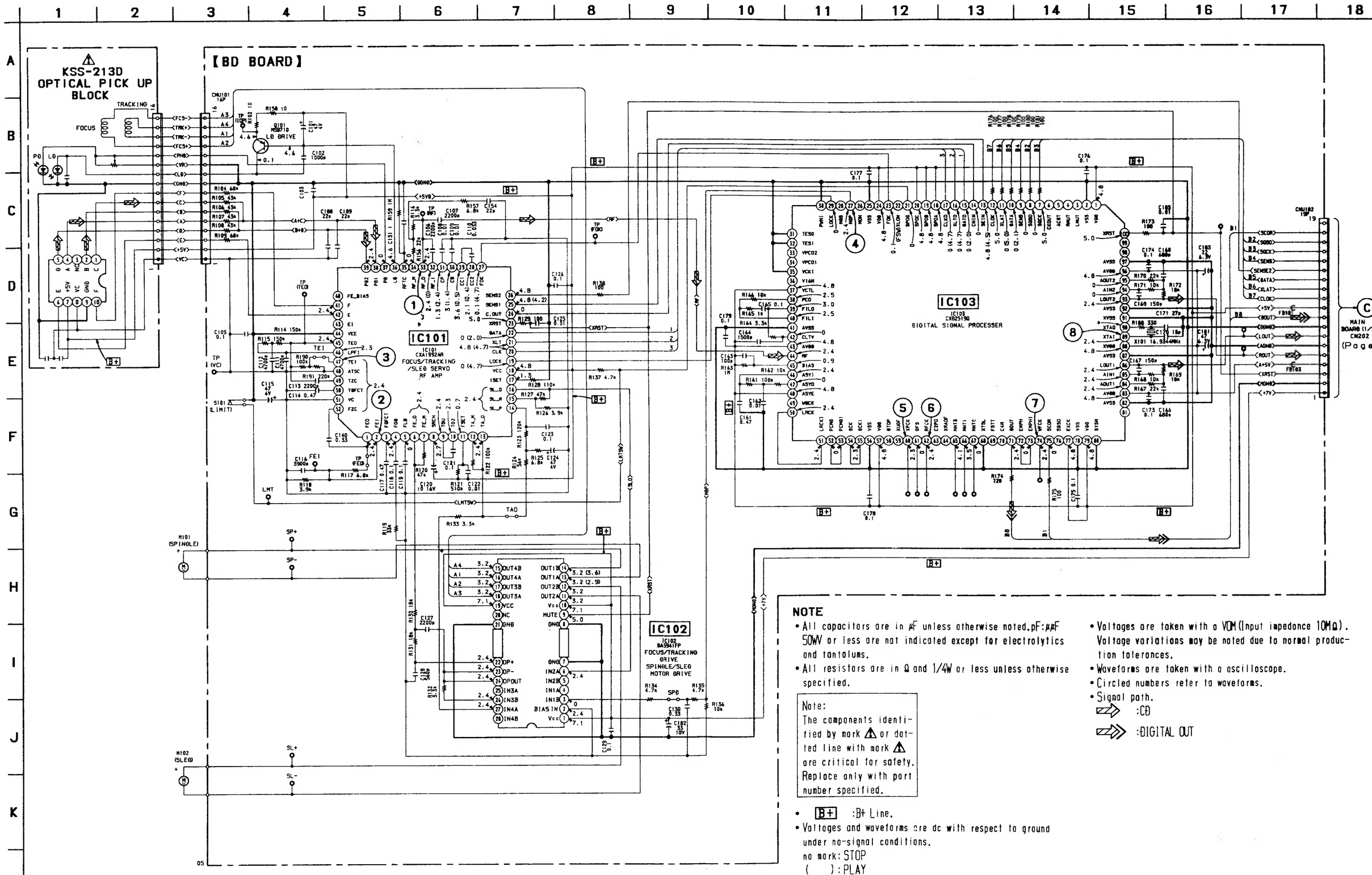


7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26

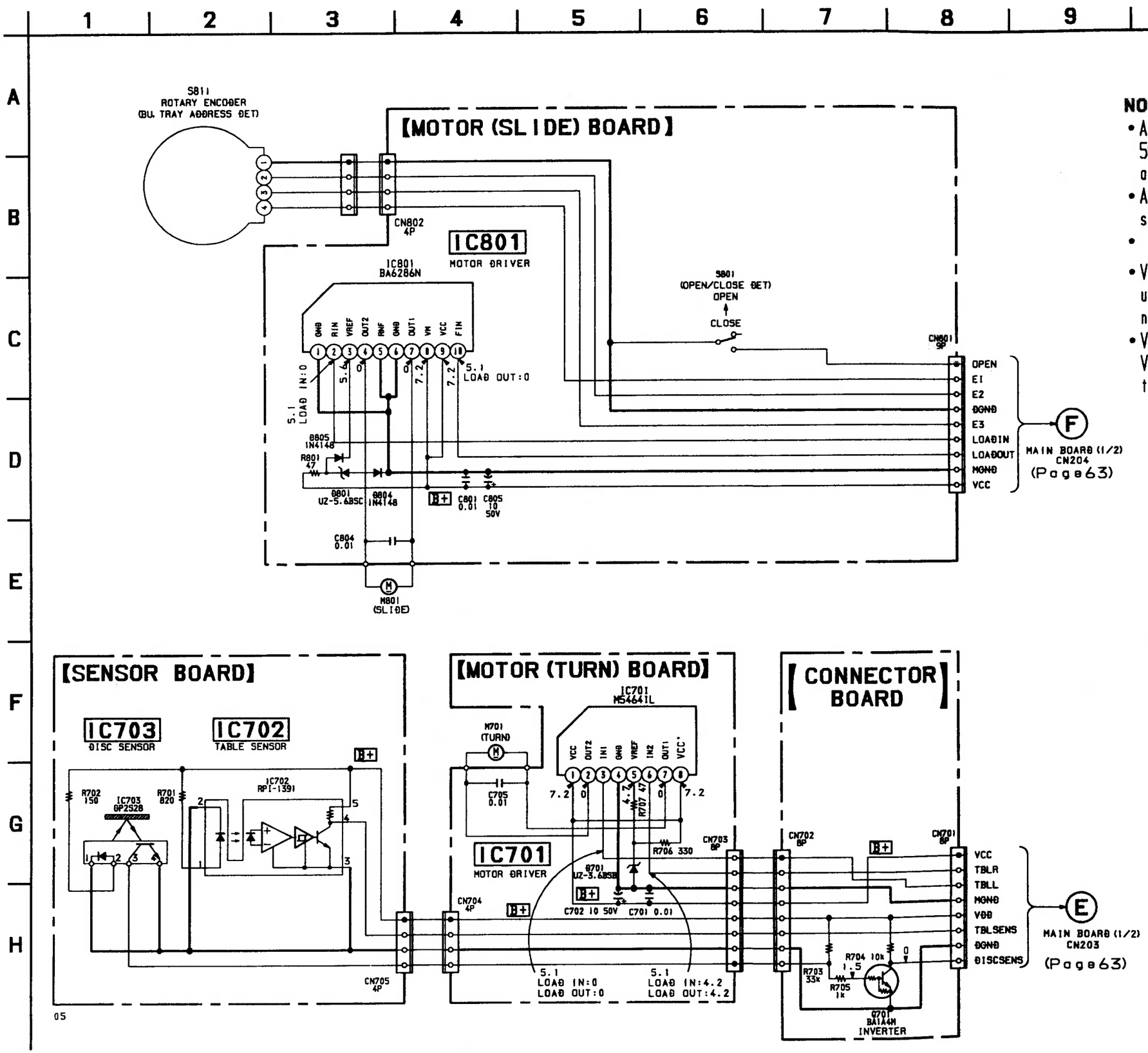


NOTE

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- ▭ :panel designation.
- B+ :B+ Line. • B− :B− Line.
- ▭ :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
  ( ) : AM (MW, SW)
  < > : LW
- Abbreviation
  JE : Tourist AE0 : Northern European
  G : German EEE : East European
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM (MW)
  ⟹ : SW

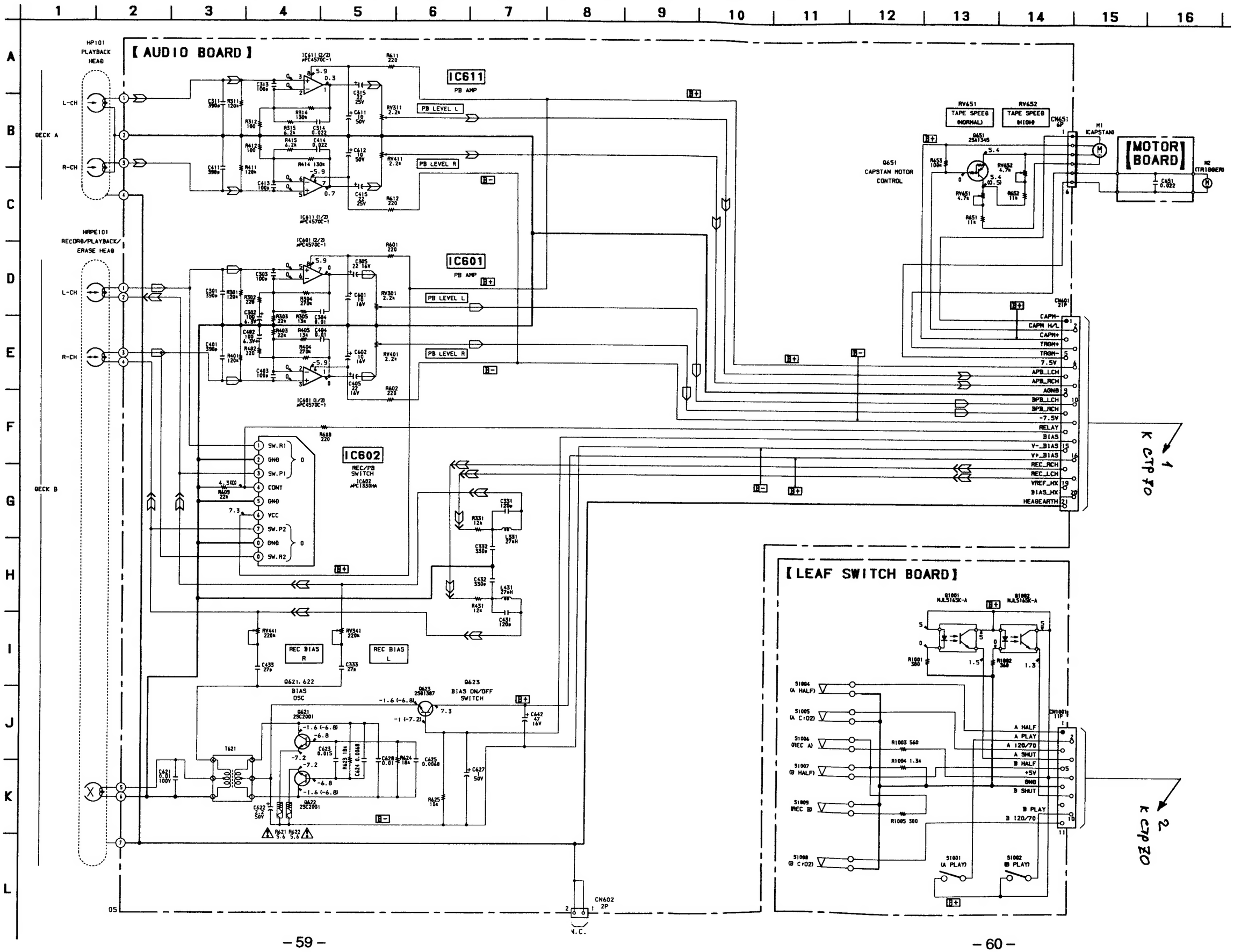

KSS-213D
OPTICAL PICK UP
BLOCK
【BD BOARD】
IC101
CXA1992AR
FOCUS/TRACKING
/SLED SERVO
RF AMP
IC102
BA5847FP
FOCUS/TRACKING
DRIVE
SPINDLE/SLED
MOTOR DRIVE
IC103
CX82515Q
DIGITAL SIGNAL PROCESSER
X101 16.9344MHz
M101
(SPINDLE)
M102
(SLED)
MAIN
BOARD (1/2)
CN202
(Page63)
NOTE
• All capacitors are in μF unless otherwise noted. pF: μμF
50WV or less are not indicated except for electrolytics
and tantalums.
• All resistors are in Ω and 1/4W or less unless otherwise
specified.
Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.
• B+ :B+ Line.
• Voltages and waveforms are dc with respect to ground
under no-signal conditions.
no mark: STOP
( ): PLAY
* :Impossible to measure.
• Voltages are taken with a VOM (Input impedance 10MΩ).
Voltage variations may be noted due to normal production tolerances.
• Waveforms are taken with a oscilloscope.
• Circled numbers refer to waveforms.
• Signal path.
:CD
:DIGITAL OUT

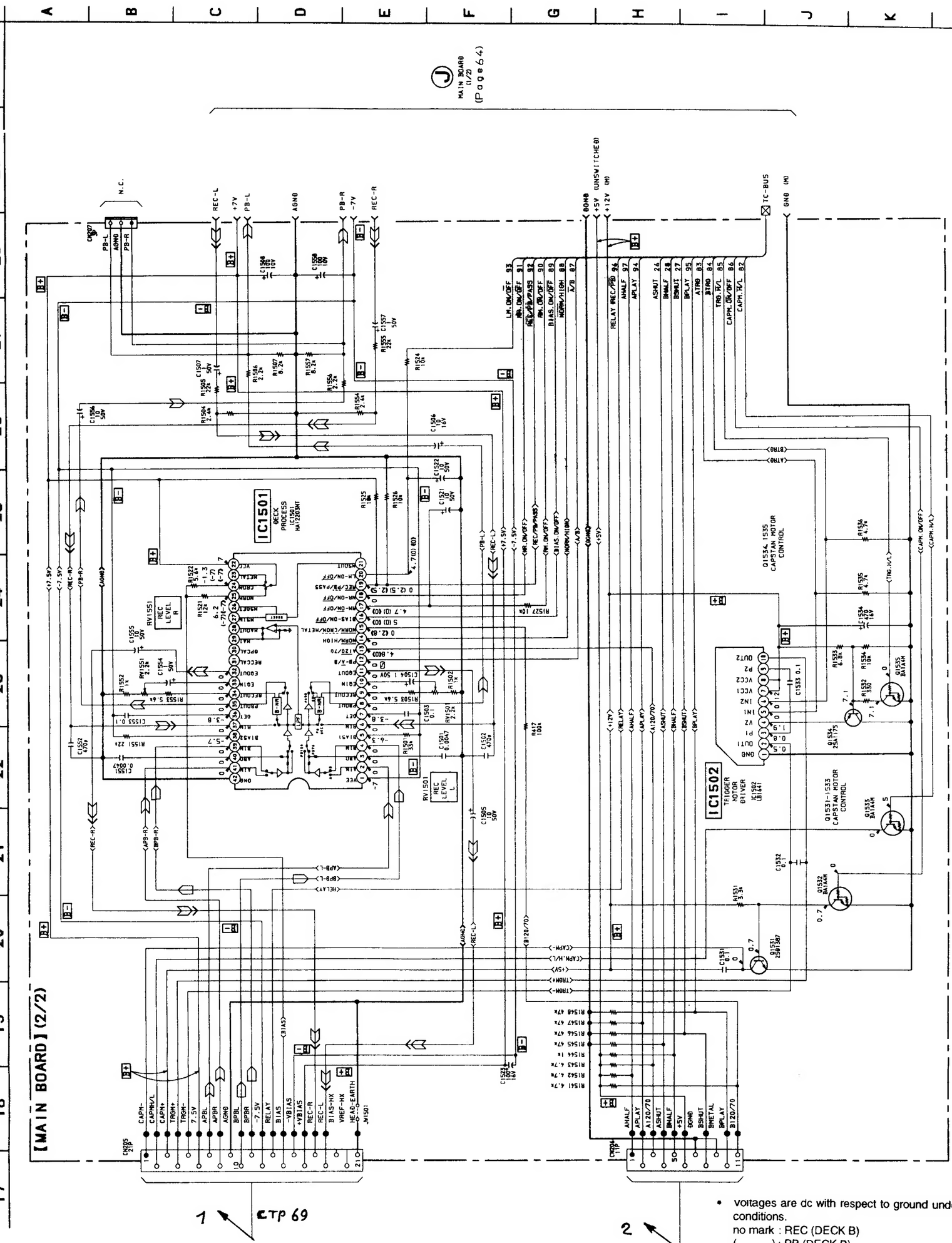
SCHEMATIC DIAGRAM – CD MOTOR Section – • See page 82 for IC Block Diagrams.



NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- B+ :B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: STOP
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.


【AUDIO BOARD】
HP101 PLAYBACK HEAD
HRPE101 RECORD/PLAYBACK/ERASE HEAD
L-CH
R-CH
DECK A
DECK B
IC611
PB AMP
IC601
PB AMP
IC602
REC/PB SWITCH
PB LEVEL L
PB LEVEL R
REC BIAS R
REC BIAS L
Q621, 622 BIAS OSC
Q623 BIAS ON/OFF SWITCH
RV651 TAPE SPEED (NORMAL)
RV652 TAPE SPEED (HIGH)
Q651 CAPSTAN MOTOR CONTROL
M1 (CAPSTAN)
【MOTOR BOARD】
M2 (TR100ER)
CN651
CN601
CAPH-
CAPH H/L
CAPH+
TRGH+
TRGH-
7.5V
APB_LCH
APB_RCH
AGND
BPB_LCH
BPB_RCH
-7.5V
RELAY
BIAS
V-_BIAS
V+_BIAS
REC_RCH
REC_LCH
VREF_HX
BIAS_HX
HEADEARTH
CN602 2P
N.C.
K CTP 1
K CTP 2
【LEAF SWITCH BOARD】
S1001 (A PLAY)
S1002 (B PLAY)
S1004 (A HALF)
S1005 (A CrO2)
S1006 (REC A)
S1007 (B HALF)
S1008 (B CrO2)
S1009 (REC B)
A HALF
A PLAY
A 120/70
A SHUT
B HALF
+5V
GND
B SHUT
B PLAY
B 120/70
CN1001 11P



- Voltages are dc with respect to ground under no-signal conditions.
  no mark : REC (DECK B)
  ( ) : PB (DECK B)
  << >> : PB (DECK A)
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : PB (DECK A)
  : REC (DECK B)
  : PB (DECK B)

【DJ BOARD】

【MAIN BOARD】(1/2)

【TRANS BOARD】

IC401 DJ EFFECT CONTROLLER

IC201 EQ/VOLUME

IC202 BUFFER

IC231 AMP

IC102 FUNCTION SWITCH

IC281 PROTECTION

IC241 AMP

IC301 MASTER CONTROL

IC302 RESET

IC391 CD OPTICAL DIGITAL OUT

IC901 POWER SUPPLY

IC902 +7V REG.

IC903 +5V REG.

IC904 +12V REG.

• Waveforms

● IC301 ⑪

4.4 Vp-p

5 MHz

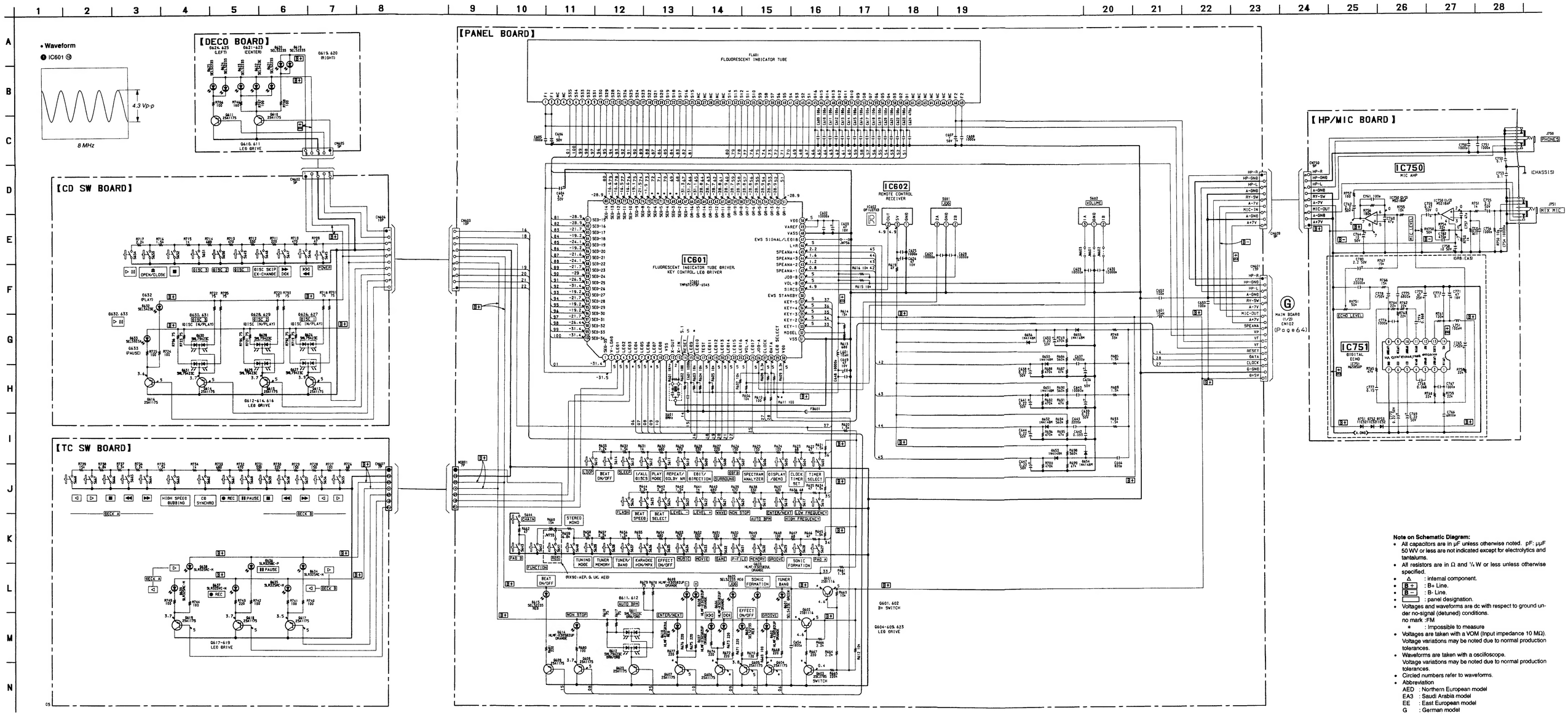
● IC301 ⑭

3.1 Vp-p

32.768 kHz

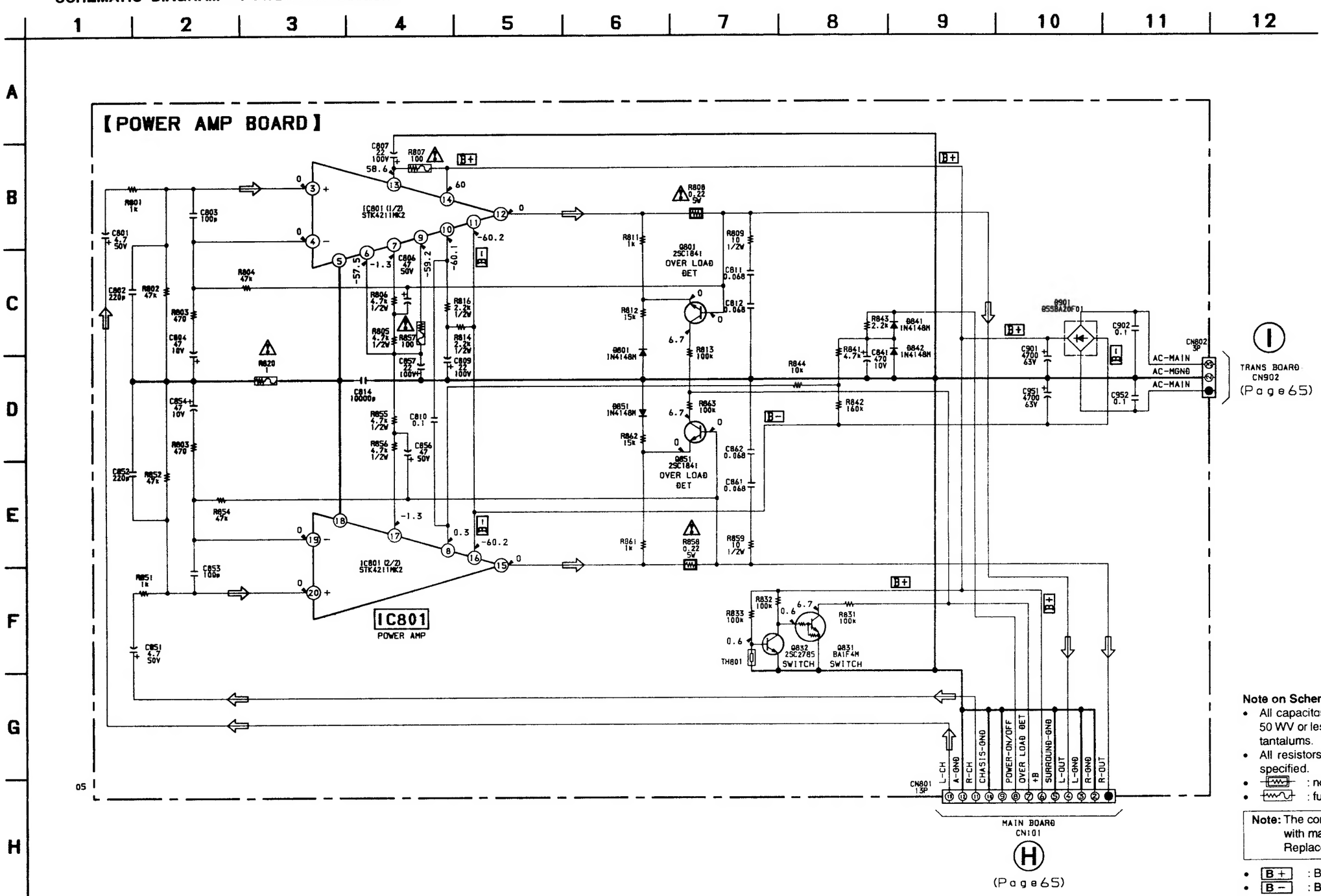
- B+ : B+ Line.
- B– : B- Line.
- [ ] : panel designation.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : CD
  << >> : REC (DECK B)
  [ ] : PB (DECK B)
  { } : PB (DECK A)
  * : Impossible to measure
- Voltages are taken with a VOM (input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : PB (DECK A)
  ⇨ : REC (DECK B)
  ⇨ : CD
  ⇨ : DIGITAL OUT
  ⇨ : VIDEO/MD



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF
  50 WV or less are not indicated except for electrolytics and tantaliums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ Line.
- B− : B- Line.
- [ ] : panel designation.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark :FM
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Abbreviation
  AED : Northern European model
  EA3 : Saudi Arabia model
  EE : East European model
  G : German model



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- B+ : B+ Line.
- B− : B- Line.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark :FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM